

*Sab  
B1  
Contd*

surrounding relation to said interior portion such that the six contiguous perimeter edges cooperatively define an edge boundary around said interior portion.

*A2 Sab*

2. (Amended) The wiper cloth of Claim 1 wherein the six contiguous perimeter edges are of substantially equal length.

*A3 Sab*

4. (Amended) The wiper cloth of Claim 1 wherein the sheet material is knitted fabric comprised of filament synthetic yarn.

Kindly add new claims 27- 29 as follows:

27. (New) The wiper cloth of claim 1 wherein the sheet material comprises a knitted fabric.

28. (New) The wiper cloth of claim 1 wherein the sheet material comprises a woven fabric.

29. (New) The wiper cloth of claim 1 wherein the sheet material comprises a nonwoven fabric.

Kindly cancel without prejudice claims 3, and 5-26.

#### REMARKS

Claims 1-26 are pending in the application. Claims 1, 2 and 4 have been amended. Claims 3 and 5-26 have been canceled. Claims 27-29 have been added. Thus, upon entry of this amendment claims 1, 2, 4 and 27-29 are subject to continued substantive examination.

**RESTRICTION REQUIREMENT:**

The Office Action maintains and makes final the prior restriction requirement. Accordingly, in order to progress prosecution Applicant has canceled the claims to the nonelected groups.

**FORMAL REJECTIONS:**

Claim 2 stands rejected under 35 U.S.C. 112 second paragraph as failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. As understood, the position taken by the Office Action is that claiming edges "of substantially equal length" is too indefinite to reasonably apprise one of skill in the art of the scope of the invention.

In addressing this rejection Applicant respectfully submits that there is substantial precedent for using modifiers such as "substantially" in patent claims without tying those terms to particular measurement parameters. According to the standards of the Court of Appeals for the Federal Circuit (and by extension the PTO), the claims need only reasonably apprise those skilled in the art as to their scope to satisfy the definiteness requirement. In applying this standard the Federal Circuit and its predecessor court the CCPA have repeatedly found modifying language such as "substantial" and "substantially" to be sufficiently definite when such terms are understood to be used in their ordinary sense. By way of example, in *York Prods., Inc. v. Central Tractor Farm & Family Ctr.*, 99 F.3d 1568, 40 USPQ 2d 1619, 1623 (Fed. Cir. 1996) the court found that claim language calling for ridge members protruding in a common plane from the linear sidewall portions for at least "a substantial part of the entire height thereof" was considered definite.

In view of the fact that controlling case law seems to support the use of the modifier "substantially" in the manner as it is being used in claim 2, and the widespread use of such modifiers in numerous issued patents, Applicant respectfully submits that the outstanding rejection under 35 U.S.C. 112 second paragraph should be withdrawn.

**ANTICIPATION:**

Claims 1-4 stand rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 3,784,998 to Jones Sr.. Continued rejection on this basis is respectfully traversed and reconsideration is requested.

As set forth at MPEP §2131, in order to support an anticipation rejection, the identical invention must be shown in as complete detail as is contained in the claim. Moreover, the elements must be arranged as required by the claim. It is submitted that Jones Sr. does not satisfy this rigorous standard with respect to independent claim 1 or any claim depending therefrom. In particular, Applicant respectfully submits that Jones Sr. does not appear to establish by itself a case of anticipation for a wiper cloth of any kind. As best understood, Jones Sr. is directed to an applicator which utilizes stacked layers of multiple sheets to retain and then discharge an impregnated composition. In order to function in the intended manner, the stacked layers are segmented into a petal structure to facilitate application of the impregnated composition. Thus, Jones Sr. appears to disclose a relatively thick pad of segmented construction as opposed to a wiper cloth of sheet material.

The applicator of Jones Sr. also does not incorporate the claimed elements of a hexagonal sheet material having an interior portion defining two opposing faces and six contiguous perimeter edges disposed in surrounding relation to said interior portion such that the six contiguous perimeter edges cooperatively define an edge boundary around said interior portion as presently claimed. To the contrary, the applicator of Jones Sr. relies on a segmented perimeter construction to achieve the desired petal arrangement. Thus, the written description at Col. 2, lines 18-26 of Jones Sr. states as follows:

*Multiple incision slits 16 are formed, extending from the external perimeter 20 of the applicator 10 inwardly to the score line 14, which defines the central handle support area 13. The multiple incision slits 16 extend normally through the first support sheet 11, the second support sheet 17 and the multiple ply of sheets 18. Multiple toilet applicator*

*leaves 19 are thus provided, which comprise the multiple ply flexible sheets 18 and the second support shield sheet 17.*

In view of the express teachings in the cited reference to Jones, Sr. Applicant respectfully submits that there can be no finding that the invention of claim 1 (or any claim depending therefrom) is anticipated by that reference.

**OBVIOUSNESS:**

Claims 1-4 stand rejected under 35 U.S.C. 103(a) as being obvious over US Patent 6,189,189 to Morin et al.. Continued rejection on this basis is respectfully traversed and reconsideration is requested at this time.

As understood, the rejection is grounded the fact that Morin et al. states that the low particulate wiper may be of any geometric shape. The Office Action also relies upon the general rule that new shapes generally carry no patentable weight absent a previously unrecognized substantive benefit associated with the new shape.

As indicated at MPEP §2141, in order to support an obviousness rejection the references must be considered as a whole and must suggest the desirability and thus the obviousness of making the required alteration. Moreover, the references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention. As regards the generalized statement in Morin et al., that any geometric shape may be used, Applicant respectfully submits that such a statement read in the context of the reference as a whole fails to provide the requisite suggestion or motivation to modify the quadrilateral configurations taught in that reference to a six sided geometry.

MPEP §2143.01 makes it clear that the mere fact that references can be combined or modified does not render the resultant combination or modification obvious unless the prior art also suggests the desirability of the combination or modification. Applicant respectfully submits

that the generalized statement in Morin et al. that any geometric shape may be employed fails to provide the type of definite teaching which would lead one to the claimed invention. To the contrary, this statement implies that perimeter geometry is not important. Thus, the statement in Morin et al. actually appears to reflect the fact that benefits associated with controlled perimeter geometry were unappreciated.

While Applicant recognizes that shape modification of an article is normally not viewed as carrying patentable weight, this general rule does not apply where the new shape provides previously unrecognized attributes. The Office Action takes the position that the current application fails to indicate any new, significant attributes due to its shape which would have been unforeseen to one of ordinary skill in the art. Applicant respectfully disagrees.

As pointed out at pages 7-10 of the present application, the claimed construction affords numerous advantages including providing a shorter perimeter length to unit area than the prior quadrilateral constructions while at the same time increasing the useable wiping area. Moreover, due to the ability to efficiently nest the six sided geometry across a base fabric, wipers according to the present invention may be produced without substantial waste using common cutting lines during the cutting operation.

As indicated in the attached declaration of Mr. John McBride a key attribute of a wipe is the minimization of particulate contamination from the wipe. In fact, the reduction in particulate contamination is the primary goal of the invention in the cited reference to Morin et al.. During the cutting operation particles tend to be generated from cut edges and may be scattered across the wiping surface. In addition, during use, particles from a wipe may be generated from the cut edges of the wipe when small pieces of cut fiber become dislodged from the edge. In order to reduce particulate contamination, the prior art including Morin et al. and the references cited therein have focused on technical features such as materials of construction, particle reducing treatments such as heat setting, and edge sealing techniques such as seaming and fusion bonding. See, Morin et al. at col. 1, lines 39 - 52. However, despite the recognition that particle generation at the edges of a wipe was a problem to be addressed, the prior art fails to recognize the ability to

effectively reduce the edge length (and thus the propensity for particle generation) at the source by moving away from a standard quadrilateral geometry.

Applicant has recognized that a hexagonal geometry having six contiguous perimeter edges may be used to provide a substantial reduction in perimeter length for a given surface area compared to a standard rectangular or square sheet while at the same time providing good wiping characteristics and manufacturing efficiencies. As indicated by Mr. McBride's declaration, a regular hexagon having six contiguous equal length sides is characterized by the formula:

$$\frac{A}{a^2} = 2.5981$$

where "A" is the total area of the hexagon and "a" is the length of each side. A square sheet of 9 inch X 9 inch dimensions as advocated as being the preferred geometry in Morin et al. has an area of 81 square inches and a total perimeter length of 36 inches. Thus, a regular hexagon of 81 square inches (the same as the most preferred construction in Morin et al.) has a total perimeter length of only 33.5 inches. This represents approximately a 7 percent reduction in cut perimeter length despite increasing the number of perimeter edges from four to six. Thus, even with a greater number of cut perimeter edges, the total cut perimeter length has been reduced while maintaining the same area. This reduction in cut perimeter length thus reduces the length over which cut edge particles may be generated both during cutting and during subsequent use.

Applicant recognizes that from a hindsight perspective, the approach of the present invention may appear to have been within the reach of those of skill in the art. However, the elegant solution of the present invention appears to have been overlooked. The fact that this approach was not recognized is supported by the fact that in Morin et al. the unambiguous teaching is that squares are preferred. Thus, the prior art when considered in its entirety not only fails to recognize the significant advantages to be realized by the present invention but actually would tend to lead one away from the present invention by teaching that squares are preferred.

As stated above, the MPEP requires that the prior art considered as a whole must suggest the desirability and hence the obviousness of the proposed modification. In the present instance,

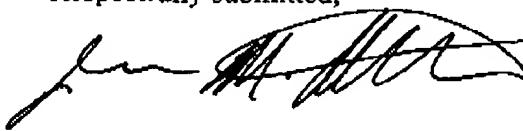
it is respectfully submitted that the prior art relied upon does not provide the requisite motivation to engage in the modification proposed by the Office Action. To the contrary, the teachings in Morin et al. clearly promote using a standard square configuration thereby evidencing a lack of appreciation for benefits associated with the present invention. The statement in Morin et al. that any other geometry can also be used is so imprecise as to provide no motivation other than to randomly try various constructions in this infinite grouping. Thus, it is respectfully submitted that using Morin et al. as a starting point without the benefit of the present application as a guide, the claimed invention can be reached only by first ignoring the express teaching in the reference that a square construction is preferred and then applying some type of impermissible "obvious to try" standard. Accordingly, it is respectfully submitted that the prior art relied upon does not establish the requisite *prima facie* case of obviousness.

**CONCLUSION:**

For the reasons set forth above, it is respectfully submitted that all claims stand in condition for allowance. In the event that any issue remains unresolved, the Examiner is encouraged to contact the undersigned attorney in the hope that such issue may be resolved in an expedient and satisfactory manner.

A petition for a one (1) month extension of time is provided herewith. To any extent that an additional extension is required, a petition for such an extension is hereby made and authorization is provided to deduct any fee necessary for the acceptance of this paper from Deposit Account 50-1424.

Respectfully submitted,



James M. Robertson  
Reg. No. 36,905

864-583-0030 (phone)  
864-583-0002 (fax)

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: Evan Sundquist  
Serial Number: 09/762,781  
Filed: 02/13/2001  
For: Sheet Wiper

Group Art Unit: 1772  
Examiner: Nordmeyer, Patricia

**Claim Mark-Up Sheet**  
**For**  
**Amendment "A" Under 37 CFR §1.111**

1. (Amended) A wiper cloth comprised of a hexagonal sheet material having an interior portion defining two opposing faces and six contiguous perimeter edges disposed in surrounding relation to said interior portion such that the six contiguous perimeter edges cooperatively define an edge boundary around said interior portion.
2. (Amended) The wiper cloth of Claim 1 wherein the six contiguous perimeter edges are of substantially equal length.
4. (Amended) The wiper cloth of Claim 1 wherein the sheet material is knitted fabric comprised of filament synthetic yarn.

FAX RECEIVED  
JAN 21 2003  
GROUP 1700